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INTERNATIONAL COOPERATION IN COMBATING TRANSNATIONAL CRIME

THE ROLE OF CRIMINAL LAW IN THE PROTECTION OF THE ENVIRONMENT

Report of the Secretary-General

Summary

The present report has been prepared in response to Economic and Social Council resolution 1996/10. It contains information received from Governments and other sources on the role of criminal law in the protection of the environment, covers their views on the feasibility of establishing appropriate machinery for applying criminal law in the protection of the environment, and outlines the action required by the Commission on Crime Prevention and Criminal Justice.

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INTRODUCTION

1. During the Ninth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, held at Cairo from 29 April to 8 May 1995, a two-day workshop on environmental protection at the national and international levels: potentials and limits of criminal justice was held, pursuant to Economic and Social Council resolution 1993/32.*

2. In its resolution 1995/27, section II, the Council called upon the Secretary-General, as well as the United Nations Interregional Crime and Justice Research Institute and the regional institutes for the prevention of crime and the treatment of offenders, to continue research, exchange of information, training and technical cooperation facilitating the development of preventive, regulatory and other strategies on the role of criminal law in the protection of the environment, with an emphasis on: (a) needs assessment and advisory services; (b) assistance

*For the report of the workshop, see *Report of the Ninth United Nations Congress on the Prevention of Crime and the Treatment of Offenders, Cairo, 29 April-8 May 1995* (A/CONF.169/16/Rev.1, paras. 355-369). The report will subsequently be issued as a United Nations sales publication.

in the review or redrafting of legislation and the development of effective infrastructure; and (c) training of criminal justice and regulatory agency personnel.

3. The above-mentioned mandate was reiterated by the Council in its resolution 1996/10, in which it decided that the issue of criminal law in the protection of the environment should continue to be one of the priority issues of the Commission on Crime Prevention and Criminal Justice at its future sessions. In the same resolution, the Council recognized the importance of enhancing international cooperation in the enforcement of domestic and international environmental criminal laws, of promoting operational activities in that area, and of protecting the environment not only at the national level but also at the international level.

4. In the same resolution, the Council requested the Secretary-General to seek the views of Member States in order to determine the feasibility of establishing appropriate machinery for applying criminal law for the protection of the environment, and to establish and maintain close cooperation with Member States and other bodies active in the field of environmental protection, particularly in the area of technical cooperation and assistance, and to continue gathering information on national environmental criminal law and regional and multinational initiatives.

5. The present report provides a summary of the responses received from the following Member States: Austria, Belarus, Brazil, Chile, Colombia, Croatia, Cyprus, Finland, Guatemala, India, Israel, Japan, Malaysia, Mexico, Morocco, Paraguay, Spain and the United States of America. It includes a summary of replies received from the United Nations system of organizations, in particular from the following: Department for Economic and Social Information and Policy Analysis, Department for Development Support and Management Services, Economic Commission for Europe (ECE), Economic and Social Commission for Asia and the Pacific (ESCAP), United Nations Conference on Trade and Development, United Nations Industrial Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Institute for Training and Research, United Nations University; Food and Agriculture Organization of the United Nations (FAO), World Health Organization (WHO), International Maritime Organization (IMO) and United Nations Industrial Development Organization (UNIDO). Contributions were also received from the following intergovernmental organizations: the Commonwealth of Independent States, the Council of Europe, the International Organization for Migration and the Organization for Security and Cooperation in Europe. The following non-governmental organizations also sent replies: Caribbean Conservation Association, Friends of the Earth, International Bar Association, International Centre of Sociological, Penal and Penitentiary Research and Studies, International Council of Environmental Law, Inter-Parliamentary Union, Japan Federation of Bar Associations and Young Lawyers' International Association.

I. INFORMATION RECEIVED FROM MEMBER STATES

A. Bilateral and multilateral agreements

6. The principle of international responsibility for the environment is contained in the Stockholm Declaration, under which the State is bound to preserve the environment and the quality of life. This responsibility is further emphasized in principle 7 of the Declaration of Rio de Janeiro on the Environment and Development, which states that "States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem", as well as in principle 13, which underlines that "States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction".

7. Nearly all environmental conventions concluded recently contain a provision requesting the contracting parties to take appropriate measures to ensure the effective enforcement and application of the respective conventions. However, only few conventions require that the contracting States should enact penal sanctions for environmental offences. These include the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, in particular its article 9, paragraph 5, the Convention to regulate International Trade in Endangered Species of Flora and Fauna of 1973, article VIII, the Convention for the Prevention of Pollution by Ships of 1973, article 4, as well as the Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa of 1991, article 9, paragraph 2, adopted by the Organization of African Unity.

8. Bilateral and multilateral treaties on the protection of the environment have been concluded by many Member States. Austria, Cyprus, Finland, Guatemala, Israel, Mexico and United States provided the Secretary-General with comprehensive lists, containing information on the main bilateral and multilateral treaties concluded, as well as national legislation to ensure their implementation. Finland reported that some provisions in its penal code are based on international conventions. In Israel, the Ministry of the Environment and its organs use all administrative, technical and legal measures provided by environmental laws, and by laws dealing with general issues, such as licensing, planning and public health, to implement bilateral and multilateral treaties that Israel has signed and ratified. Mexico emphasized that the national legal instruments enacted in pursuance of international conventions were created to ensure not only the national implementation of the conventions, but also the protection of the natural resources of Mexico.

9. In addition, Austria made reference to the Convention applying the Schengen Agreement, which Austria has signed but not yet ratified, under which measures of cross-frontier observation and prosecution are only admissible if one of the listed offences has been committed, which also included the "illicit trade in poisonous and harmful substances". Further, reference was made by Austria and Finland to the draft version of a European convention on environmental protection under criminal law, which has been elaborated within the framework of the Council of Europe. In Israel, the Ministry of the Environment was examining and implementing the recommendations made at the Fourth International Conference on Environmental Compliance and Enforcement, held at Chiang Mai, Thailand from 22 to 26 April 1996.

B. Developments in national legislation

10. Although national legislation on the protection of the environment has been enacted in many countries, statutory provisions dealing with the protection of the environment were mostly spread through a whole array of legislation and regulations, mainly focusing on hazardous waste, water, soil and air pollution, trafficking in endangered species of flora and fauna, noise pollution and trafficking in nuclear substances, and contained in the various laws on these issues. The replies on development in national legislation show that the protection of the environment at the national level is pursued in many different ways under a variety of laws in the respective Member States.

1. Constitutional law

11. A number of countries have strengthened the protection of the environment by introducing constitutional guarantees to protect nature or better the enjoyment of nature. Austria, Colombia, Croatia and India highlighted constitutional provisions guaranteeing a healthy environment. The legal framework in India is governed by constitutional provisions which oblige the State to endeavour to protect and improve the environment and imposes the same duty on every Indian citizen. Croatia has taken an active approach towards the environment as one of the most important factors and a basis of its development. Its Constitution proclaims the protection of nature and the environment as one of the fundamental values of the constitutional order, provides for the right of every person to a healthy life and environment, and further states that "entrepreneurial freedom and property rights may exceptionally be restricted by law for the purposes of protecting the interests and security of the

Republic, nature, the human environment and human health". Further, the protection of the environment is guaranteed by creating areas which should enjoy special protection, such as the sea, forests and flora and fauna. In Austria, the Federal Constitutional Act on Comprehensive Environmental Protection is an expression of the country's commitment to comprehensive environmental protection as a means of preventing the deterioration of the natural environment as the fundamental basis of human life, including measures for the conservation of air, water and soil and the prevention of noise pollution. The Constitutional Court of Colombia recognized the fact that a healthy environment is a prerequisite for the due enjoyment of other rights and fundamental values inherent in the human person. Thus, environmental policy should provide for a wide array of prevention measures and control, in order to protect this important asset. Penalties should be structured within a wide-ranging and coherent system, and, in view of the fragmentary nature of criminal law, should be classified as criminal or administrative on the basis of the seriousness of the offence.

2. Environmental provisions in penal law versus penal provisions in environmental laws

12. Two trends can be distinguished in the replies as to how to deal with environmental offences. One was to establish environmental crimes within the penal code and the other was to provide for penal sanctions in environmental legislation. However, neither of the two approaches is used exclusively. In most countries, environmental offences are included in legislation on different topics.

13. Austria listed specific environmental offences in the core of the criminal law when the comprehensive reform of the criminal law was completed in 1975. Existing provisions of the Penal Code were modified into a new environmental criminal law, which entered into effect on 1 January 1989 and which specifically refers to soils and waters as separate legal interests worthy of protection against pollution and impairment. In addition, a preliminary offence in respect of these two legally protected interests is also listed in the law as an abstract environmental hazard, with a view to preventing as much ecological harm as possible. The law deals with arbitrary or negligent impairment of the environment. Other offences covered by the Penal Code include noise pollution, ecologically harmful disposal of wastes and operation of industrial plants, as well as other hazards for species of flora or fauna listed in the code. In addition, the Austrian laws include secondary criminal law, in particular in the national law implementing the Convention to regulate International Trade in Endangered Species of Flora and Fauna, under which prison sentences of up to two years or fines can be applied to those trading in living specimens of certain species of flora and fauna.

14. In Belarus, a master plan has been elaborated for government policy with respect to environmental protection. The Criminal Code of Belarus establishes penalties for such offences against the environment as for illicit fishing and hunting, the unlawful felling of timber and the pollution of water, land or atmosphere. Penalties include fines, confiscation, corrective labour and imprisonment of up to five years. Additional laws are in place with regard to the protection of the environment, the State ecological appraisal system, the tax on the utilization of natural resources, specially protected areas and sites, and waste.

15. Chile enacted the Environment Act, stipulating that any person who unintentionally or wilfully damages the environment must either restore the damage or pay appropriate compensation. Environmental crime is not regulated, therefore, by punitive means, but rather by measures consisting basically of compensation payments and fines. The Penal Code contains provisions which classify crimes relating to animal and plant health. However, as the intention of this legislation is to protect the food supply of the population, it is limited in scope. In addition, several Supreme Decrees were enacted in 1995, setting up a framework for environmental institutions to enforce environmental legislation effectively.

16. The Penal Law of Croatia provides for the penalization of the criminal offence of pollution of the human environment, establishing responsibility for individuals acting both in their private and in their official capacity, as well as the penalization of the criminal offence of pollution of the drinking-water and food supplies. The offences are punishable by imprisonment of up to three or five years, respectively.

17. In Cyprus, the environment is protected through national legislation, providing for administrative and criminal sanctions. Such sanctions are used directly to punish environmental harm, or as a substitute for and complement to the regulatory system, in cases where the offence was not directly linked to the environmental harm but to non-compliance with the administrative process. Criminal law is used to punish environmental harm as a public wrong, the purpose being to protect the citizen while the protection of the environment was undertaken as a collorary matter, and as a moral wrong, the protection of the environment being an end in itself. Environmental offences are included in the Criminal Code as well as in other laws dealing with, for example, fisheries, the control of water pollution and of atmospheric pollution from industrial sources, forestry, petroleum, the protection of wild birds, and dangerous substances. Punishment ranges from fines to five years of imprisonment for the use of explosives in fishing.

18. Finland reported that penal sanctions for environmental offences, where the sentence may be imprisonment, can mainly be found in the Penal Code. The chapters on environmental offences and corporate criminal liability entered into force in 1995. Juridical persons can be punished for environmental offences committed in the course of their activities. Several special acts that were enacted in 1995 contain provisions on environmental offences, including acts on such matters as: the prevention of pollution from ships; waterways; protection of the environment; relics of antiquity; protection of forests; soil; pesticides, noise abatement; and waste management. The Public Health Act of 1994 and the Chemicals Act of 1989 also provide sanctions for environmental offences.

19. Guatemala listed 25 laws and regulations which include provisions on environmental offences, most prominently the Penal Code and the Health Code. Additional legislation dealt with issues such as protected areas, minerals, hydrocarbons, forests, fisheries, pesticides and fertilizers.

20. India noted that, in addition to the relevant articles of the Constitution, major legislative provisions in the protection of the environment are included in the Indian Penal Code, the Criminal Procedure Act, and the Environment Protection Act. The Criminal Procedure Act confers powers to the executive to regulate and prohibit industries or activities causing pollution and resulting in acts detrimental to the environment. The Indian Penal Code lists several acts affecting the environment as offences against public health, such as negligent acts likely to spread infections and disease dangerous to life. Most of these provisions are referred to as cognizable offences, which means that the police can register a criminal case *suo moto* (by its own initiative). The Environment Protection Act provides stringent procedures to control environmental pollution. The Act furnishes the Government with the power to take measures for protecting the environment, to give directions, and to make rules. Contravention of the provisions of the Act or of orders issued under the Act is considered an offence. Where the offence was committed by a department of the Government, the heads of department will be held criminally responsible. Other legislation that provides for penal sanctions deals with forests, atomic energy, insecticides and water and air pollution.

21. Israeli environmental legislation consists of national and municipal legislation as well as international law, and is enforced through administrative, civil and criminal measures. The greater portion of the environmental legislation is criminally oriented. Environmental legislation is comprised both of laws that deal with specific environmental issues, and of laws of a general nature, concerning such matters as air, water, sea and noise pollution, licensing and the use of hazardous substances. The Licencing of Businesses Law, for example, provides for the supervision of industries and businesses, by stipulating special conditions to a license and by allowing for the closure of businesses not abiding by the law. Penalties range from fines to imprisonment. If it was not the offender's first violation of this law, an additional penalty may be added. In cases where the offender did not stop the polluting activity although the proper authorities have obliged him to do so, he can be sanctioned with additional fines or prison time for every day the violation continued. Another method of enforcement is administrative liability, which allows for owners, administrators and executives to be indicted for their company's offences. Administrative action is also taken through special directives that order an individual polluter to take specific clean-up action, allowing the introduction of professional and technical

requirements. Although civil law is employed, undoubtedly the most effective enforcement tool of the law is that of criminal prosecution, which has some obvious enforcement merits. It is an effective deterrent tool, especially for those in high positions, such as managers of major industries.

22. Japan has enacted numerous laws containing penal provisions relevant to the protection of the environment. The Penal Code contains provisions on environmental offences in areas such as the leakage of gas and the pollution of water and water supply systems. Additional laws deal with issues such as nature conservation, natural parks, the preservation of endangered species, air, water and maritime pollution control, and waste disposal and public cleaning. In addition, several local governments have stipulated their own rules to protect their local environment.

23. In Malaysia, the main law with regard to the environment is the Environmental Quality Act of 1974 and its subsidiary legislation covering such topics as licensing, clean air, sewage and industrial effluents, waste, marine pollution and the control of lead and emissions.

24. In Mexico, the federal environmental authorities have established laws, regulations and official standards to regulate production, social and economic activities. The Penal Code lays down offences of an ecological nature, dealing, for example, with the unlawful destruction of raw materials, trees, agricultural or industrial products or means of production, such destruction being detrimental to national wealth or consumption, as well as with the protection of mammals or marine vertebrates and aquatic species. Sentences include fines and imprisonment for up to three years. Additional ecological offences involve damaging or harming certain areas by burning, flooding or blasting, where the protection of the flora is the sole object of the relevant legal provisions. In general, conduct that constitutes an offence is covered in the Penal Code, but many other offences are included in various non-criminal ordinances, called "special offences". Laws covering special offences are the General Ecological Balance and Environmental Protection Act, the Forestry Act and the Federal Hunting Act. Sentences provided for in the General Ecological Balance and Environmental Protection Act range from fines up to nine years of imprisonment.

25. In Morocco, environmental criminal law consists of a large number of provisions contained in its Penal Code, which imposes, for example, punishment of up to 20 years of imprisonment on any person who voluntarily destroys dams by using explosives. A number of other provisions including criminal sanctions can be found in different Decrees, concerned, for example, with the protection of the marine environment and water, and providing for imprisonment of up to five years for any manufacturing or usage of illicit fishing instruments. The harshest punishment is foreseen for the arson or attempted arson of forests, which is sanctioned under a Royal Decree of 1917 by a penalty of hard labour, as well as under the Penal Code itself, which provides for imprisonment of between 10 and 20 years, and in cases where such arson causes the death of one or more persons, the offence is liable to capital punishment. In the case of arson causing permanent infirmity, the punishment is life imprisonment.

26. In Paraguay, there are several laws concerned with the protection of the environment and which contain penal provisions dealing with such matters as forestry, protected nature areas, fisheries, as well as indigenous peoples. Penal provisions are also included in legislation on environmental impact assessments.

27. In Spain, the Criminal Code of 1995 contains several environmental offences relating to town and country planning, the protection of the natural heritage and the environment, fires and the public safety. All offences related to smuggling are included in the Law for the Suppression of Smuggling of 1995. In addition, several orders and laws have been enacted with reference to sea pollution. Additional legislation including penal provisions was enacted in order to implement international treaties, for example, the Basel Convention and the Convention to regulate International Trade in Endangered Species of Flora and Fauna.

28. In the United States of America, a number of environmental and natural resources statutes containing penal provisions have been enacted in order to protect the environment and to implement international agreements. A comprehensive list of national legislation and regulations containing penal provisions relevant to the protection of the environment was received. The environmental and natural resources statutes cover an extensive area. Examples of topics covered by the statutes are toxic substances, insecticides, fish and wildlife, endangered species, hazardous wastes, whaling, migratory birds, high-seas fishing, Antarctic conservation, water pollution and clean air. The regulations provide for civil, administrative and criminal penalties. In the area of hazardous waste management, for example, a knowingly committed offence which at the same time places another person in imminent danger of death or serious bodily injury can be fined by up to 250,000 United States dollars ($) or imprisonment of up to 15 years. In cases where the offender is an organization, the fine is increased to a maximum of $1 million.

3. New trends in legislation on environmental crime

29. The reform of existing legislation has been undertaken recently in an increasing number of countries. The reforms range from strengthening environmental legislation, or combining all environmental offences in one title of an existing code, to establishing new legislation that deals exclusively with environmental crime.

30. Austria reported that the government bill for the 1996 Penal Code Modification Act, submitted to parliament for consideration, contains proposals for a modification of the environmental provisions of the Penal Code, the objectives being: to introduce a new criminal provision against ecologically harmful transboundary movements of hazardous substances ("waste tourism"); to separate the offences of ecologically harmful waste treatment and the ecologically harmful operation of industrial plants, and to include the deterioration of air quality; and to lay down a specific negligent behaviour in connection with the ecologically harmful treatment of wastes.

31. In Belarus, the Government is currently reviewing draft laws on the protection and utilization of the animal and plant world and water, as well as the atmosphere and land, including provisions for increased criminal penalties for activities damaging to natural resources.

32. The Ministry of Justice of Brazil recently summoned a group of experts to draft a national environmental law. The experts produced a comprehensive legal statute that covers offences against all parts of the environment, such as soil, water, air, forests, flora and fauna, national parks, monuments and historical sites and the landscape. The draft includes fines and imprisonment of up to four years, which can be aggravated under certain circumstances. In addition, alternative sanctions such as community service, cancellation of licences or authorizations, suspension of activities, home arrest and the loss of valuables are foreseen. A provision that held persons such as supervisors, managers, auditors and directors responsible for environmental offences committed with their knowledge or assumed knowledge was included. Further, juridical persons are sanctioned if the infringement was committed on the basis of a decision of its legal representative or employees in the interest or to the benefit of the juridical person. It further provides for special sanctions applicable to juridical persons, such as suspension of activity, confiscation, prohibition to contract with a public entity, loss of subsidies, closure of business, funding of environmental programmes and projects, and liquidation of the juridical person. The draft was being analysed by the National Congress.

33. Colombia established in 1993 an Environmental Legislation Review Committee, to review the environmental criminal legislation in force and to elaborate procedures to guide the process of reform of the penal code in this area. At the same time, a bill for reform of the penal code with respect to offences against natural resources and the environment was submitted. The Committee is currently examining this bill, and has made its comments available for consideration by the Ministry of the Environment. The reform of environmental criminal law in Colombia requires that emphasis should be placed, in legislative policy-making, on the effectiveness of criminal law as a means of social control, and that legislative policy should form the

basis of a classification of criminal offences, with due regard to legal doctrine, the principles of legality and the normative elements within its purview. Moreover, criminal policy should be viewed as a scientific procedure permitting critical analysis of the possibilities and limitations of criminal law dealing with a significant area of criminality. Reform in this area involves the systematic and separate classification of the legally protected environment. The offences involved currently appear in the penal code in the section on crimes against the economic and social order, since the legally protected environment is simply regarded as a means of production.

34. The Israeli Environmental Bill 1996 is currently in the midst of the legislating process in parliament. The Bill gives more powers to the Minister of the Environment to attach conditions to permits and to issue administrative stop orders, widens judiciary powers to issue performance orders, imposes personal liability on company directors, increases fines significantly and imprisonment periods to a maximum of three years, and subjects the State and its organs to the obligations of the laws being amended.

35. The Government of Mexico recently submitted to the General Congress of Mexico a series of legislative reforms, including amendments to the General Ecological Balance and Environmental Protection Act, the Forestry Act, the Federal Hunting Act and the Penal Code. The draft reform shows that the class of special offences was abolished and incorporated in a single title of the Penal Code entitled "Environmental Offences", in order to systematically consolidate environmental offences. Additional classes of offence were defined to protect legal assets not previously covered by the criminal law. Among the variety of interests safeguarded in the draft reform are natural resources, natural features and endangered species. In addition, the reform decree allows the possibility of additional sanctions being applied, such as suspension, modification or demolition of construction works, actions to restore ecosystems or natural features, and return of hazardous waste, or items of flora and fauna that are endangered or threatened with extinction, to their country of origin.

C. Initiatives for the enforcement of environmental legislation

36. In Belarus, the Ministry of Natural Resources and Environmental Protection is working on the expansion of international cooperation in the field of environmental protection. International experiences have been studied and their applicability analysed, and the country's compliance with obligations under international agreements in the realm of environmental protection has been monitored.

37. In Chile, the principal actors in the area of environmental protection are the State, the business community, environmental non-governmental organizations, the political parties and the armed forces. The activities of the State focus on the preparation of an institutional framework to deal with environmental matters and to ensure compatibility between economic development and environmental conservation. The progress achieved in this area is exemplified by the promulgation of the Environment Act of 1994, the setting-up of the National Environment Commission, the formulation of the basic regulatory provisions required to implement environmental policy in accordance with the Act and the implementation of an environmental rehabilitation programme. The business community became involved because of environmental regulations imposed by various international target markets for their exports of natural resources. The armed forces have undertaken a range of initiatives in this area, as the Constitution of Chile conferred on them rights and duties related to the protection of the environment, the preservation of the country's environmental heritage, the maintenance of a pollution-free environment and nature conservation.

38. Colombia reported that since 1995, the Ministry of the Environment, in cooperation with the School of Criminology and Forensic Sciences of the National Procurator-General's Office, organized a series of training workshops on the environment for judges and procurators at the regional level. This first experiment aimed at raising awareness of the subject among the judiciary, thus helping to strengthen environmental crime prevention and control at the different levels involved. In this respect, the ultimate objective of the Ministry of the Environment is to develop, in cooperation with the Ministry of Justice and Law and other competent authorities of the judicial sector, a theoretical and practical support structure, allowing for a policy against environmental

crime to be developed, in order to enhance the role of criminal law in the protection of the environment and, at the same time, to strengthen administrative measures.

39. In Cyprus, enforcement of environmental criminal law is usually left to the government authorities responsible for the protection of the environment. Nevertheless, private prosecution by individuals or environmental groups is also a possibility, and it can be exercised with the consent of the Attorney-General. In recent years the penalties for relevant criminal offences have become more strict. Furthermore, sometimes the penalties provided for an offence may have been accompanied with an order for the clean-up of the environment. Such a combination of penalties is very effective, since in addition to punishing the polluter and thus deterring him and others from further acts of pollution, it also remedies the harm already done.

40. Guatemala is in the process of adopting regulations on permissible limits to air, water, soil and noise pollution.

41. In India, special cells, police task forces and other law enforcement agencies were created to strictly enforce environmental laws and investigate environmental crimes. The intervention by the judiciary as well as the number of reported environmental crimes are deterring the various industries manufacturing hazardous substances from pollution and dumping of effluents and untreated industrial wastes. The environmental clearance of projects is granted after examination by environmental appraisal committees. Since the experience of the Bhopal gas accident, every effort is being made to involve the public, local communities and experts in the clearance procedures.

42. Israel reported that at the criminal supervisory level, a well-equipped and highly mobile "environmental patrol", staffed by trained personnel authorized with police officers' powers, operated within the Ministry of the Environment. The Ministry also operates some specialized supervision units in specific areas, such as marine and coastal inspection and monitoring of poisonous substances. Other bodies, such as the Nature Reserves Authority, the Drainage Authorities and various ministries, also carry out supervisory duties and assist directly and indirectly in the enforcement of environmental matters as part of a "green police". Furthermore, the local authorities have their own supervisory infrastructure, with thousands of inspectors who play a most important role in the supervision of business licences, and in the enforcement of municipal legislation. The Israel Police Force is involved in the enforcement of environmental laws only to a limited extent, partly because of a shortage of manpower and mainly because the enforcement of environmental legislation is given a very low priority. In addition, it should be noted that the police lacks professional skills regarding environmental issues. Therefore, generally the role of enforcing environmental law is carried out by professional environmentalists trained and empowered as police officers, rather than by police officers. As part of Israel's efforts to strengthen the enforcement of environmental laws and to increase the number of people participating in the process, the general public is recruited. Some years ago an innovation in the field of Israeli law enforcement procedures was introduced by appointing individuals from the general public as "cleanliness trustees". These volunteers participate actively in the enforcement of the Maintenance of Cleanliness Law by filing complaints against offenders of the law. The law grants these volunteers the power to request persons, who in their sight committed an offence against the law, to identify themselves. The complaints are the basis for a subsequent "finable offence" procedure. By the end of 1995, more than 120,000 "cleanliness trustees" were recruited from the general public, and about 10,000 tickets and court actions per year are initiated by their activities, not to mention the educational and preventive value of this widespread public activity. Furthermore, the Ministry of the Environment, prior to going to court, conducts a hearing process during which the details of the case are presented to the suspects, who are called upon to respond, offer an explanation for the violations, and suggest remedial steps that they intend to undertake. The actual prosecution is handled within the general criminal system, where again, as in the case of the police, the State prosecution system rarely handles environmental issues because of an absence of both resources and awareness. Consequently, the Ministry took on the services of private law firms empowered by the Attorney-General to represent the State in criminal proceedings. These legal services are financed through a special budget, allocated for the prosecution of environmental pollution

offences, or funds based upon fines imposed in breach of certain laws. In certain cases, however, a monetary fine is too weak, and the stigma of a criminal sentence carries greater weight. Another aspect of the Ministry's prosecution policy and practice is that whenever legal proceedings are initiated against a company or authority, as a matter of regular practice measures are also taken on a personal basis against a high-ranking individual. In addition, the Ministry of the Environment, in cooperation with the Ministry of Justice, is preparing a proposal that would raise the level of fines for the violation of almost all environmental laws.

43. Mexico elaborated on its general ecological policy, which is contained in the Environment Programme 1995-2000, comprising environmental measures to be enacted on a sectoral basis. The further revision of legislation and the application of sanctions and safeguards is envisaged. One of the legal institutions that will be developed more rapidly in the next few years deals with questions of environmental liability. The Environment Act as well as other environmental legislation will have to rely on this principle in order to be effective, and companies will have to recognize that enforcement of environmental laws will increase administrative, civil and criminal liability in the future.

44. Spain reported on initiatives to combat marine pollution, including the control and monitoring of maritime transport of pollutant products that may have an impact on the environment; the prevention of pollution from ships; the monitoring and control of industrial waste or waste from ships; and active participation in the implementation of specific maritime safety plans in each port, taking into account current provisions including those of the National Regulation for the Admission, Handling and Storage of Hazardous Goods in Ports. With regard to harmful and hazardous goods, the Spanish Maritime Service of the Civil Guard ensures the safe keeping and monitoring of such goods within harbour premises and anchorages and compliance with legislation on handling, loading and unloading. In addition, the Maritime Service cooperates with other authorities and bodies in the protection of the maritime environment as regards compliance with legislation on pollution caused at sea.

45. In the United States, the Department of Justice is engaged in an ongoing initiative to establish effective and productive working relationships between the federal Government and state governments and local governmental subdivisions. This initiative took the form of participation in criminal enforcement task forces at various levels and work with local law enforcement coordinating committees. It also involves efforts to provide environmental crimes training to enforcement personnel at the state and local levels. This was a very important initiative because many of the environmental laws contemplate joint or parallel implementation. The coordination that comes from this initiative will allow collective enforcement resources to be employed more efficiently without duplication, thereby extending those limited resources as far as possible. With regard to current regional initiatives, including initiatives under the North American Commission for Environmental Cooperation, the United States is engaged in cooperative efforts with federal law enforcement officials from Canada and Mexico regarding criminal law enforcement for the protection of the environment.

D. Statistical information on the extent of environmental crime

46. Austria submitted a table containing detailed data on convictions for environmental crimes committed from 1992 to 1994. The total number of convictions on environmental charges (19), seven years after the new Environmental Criminal Act took effect, corresponds to the average figures of the previous years. As was previously the case, the largest proportion of offences was due to negligent behaviour. However, it must not be overlooked that, under certain circumstances, the institution of criminal prosecution by the judicial authorities may have also contributed to an intensification of efforts by the competent administrative authorities to encourage repair measures and to remedy environmental damage, even if no penalty was eventually imposed. The efficacy of the environmental criminal law must therefore not only be viewed on the basis of sheer numbers of convictions, but must always be seen in conjunction with environmental administrative law and administrative criminal law. According to an internal statistical assessment by the Federal Ministry of Justice, a total of 561 criminal reports concerning environmental offences under the Penal Code were filed with the

Public Prosecutor. Of the cases investigated, charges in 425 cases were either dropped or the proceedings were temporarily or permanently discontinued.

47. In Guatemala, the Public Prosecutor was dealing with a total of 27 cases, of which 25 were concerned with forest offences, one with forest fires and one with the protection of fauna. The same office has further received 20 reports on forest offences, 31 on water pollution, and one on forest fires.

48. In India, the collection of information for statistics on offences against the environment has recently been started.

49. Israel replied that out of the many administrative cases dealt with, only few reached the stage of criminal prosecution and had to be brought to court. During 1994 and 1995 these amounted to 20 cases concerning pollution of water resources, and 15 on breach of terms of business licences or hazardous materials' permits. Different statistics characterized prosecution in the fields of solid waste and littering as a result of the work of the cleanliness trustees and the environmental patrol, which issued about 10,000 fines per year. The majority of environmental cases were dealt with in the magistrates' and local courts, although some cases were deliberated upon at the district court level and by the Supreme Court.

50. Japan noted that 5,476 cases involving violations of the criminal provisions of national legislation on the protection of the environment were settled by the Office of the Public Prosecutor during 1995. From 1993 to 1995, 160 of the accused were found guilty in formal trial by the courts of the first instance, the majority for violations of the Waste Disposal and Public Cleaning Law, of which illegal dumping constituted 75 per cent. The most common sanction was imprisonment with suspended sentence.

51. In Mexico, based on current penal legislation, the Federal Attorney-General for Environmental Protection, since the office was set up in 1982, has participated in the hearing of 115 complaints to the National Prosecution Service for a variety of environmental offences. This represents an average of more than three complaints a month, with 88 cases currently in progress.

52. Spain noted that from its creation in 1992 until August 1996, the Maritime Service of the Civil Guard had instituted 237 proceedings on offences against the Law on Marine Pollution, 122 on offences against the Law on Coasts, and 5 general offences against the ecology and the environment. In addition, five crimes against the environment based on the criminal code were instituted. The Nature Protection Service of the Civil Guard provided data on environmental offences reported from 1991 to 1996, according to which arraignments in environmental matters were steadily increasing, with a peak of 90,531 in 1995.

53. The United States provided information on different elements of criminal case activities covering the fiscal years 1991 to 1994, including filings, outcomes, incarceration/probation and conviction rates. The sections were divided into environmental crimes and wildlife crimes. The total money paid by the defendants on clean-up, fines, restitution etc. ranges from an average of about $22 million in the years 1991, 1993 and 1994 to over $163 million in 1992. While in the years 1991 to 1993 a significantly higher share of probation sentences were given as compared to imprisonment, the gap between the two became smaller in 1994. The conviction rate averaged almost 87 per cent during the years concerned.

E. Feasibility of establishing appropriate machinery for applying criminal law in the protection of the environment

54. Austria welcomed international initiatives for a better exchange of information and an evaluation of the effectiveness of criminal provisions for the preservation of natural resources. With regard to the question whether the penalties that a potential offender might incur should be governed by administrative criminal law or by the criminal justice system, criminal sanctions had, without doubt, a more profound symbolic effect,

especially when they were not imposed. Nevertheless, such sanctions still needed to rely on a generally agreed notion of common sense, which was only infrequently the case with regard to environmental issues, especially when such charges as negligent behaviour were involved. However, while it was generally true that the instruments of criminal law should be used as economically as possible, it must nevertheless be seen that there are certain offences, especially in regard to the environmental sector, the severity of which seems to be such that the sanctions available under administrative law are no longer sufficient for ensuring adequate penalization. Regarding the feasibility of establishing appropriate machinery for applying criminal law for the protection of the environment, Austria stressed that environment-related criminal law in general has a mere ancillary function in the whole array of environmental laws and policies. Any further improvement in the current standard of environmental protection may therefore primarily be expected from new developments in administrative environmental law, given the fact that the various environmental compartments would, to a certain extent, always be exploited and used economically, and could thus only be given limited protection. While it was true that any enforcement of environmental administrative law was to some extent dependent on a general understanding that non-compliance with legal rules will not be tolerated, criminal law should only be applied as an *ultima ratio*, and should be restricted to the most severe cases of environmental damage. From a more general point of view, issues that need to be considered in this context should include not only the question of the applicability of criminal law, but also all possible contributions of administrative and civil law (environmental liability law), as well as the establishment of appropriate preventive and supervisory measures.

55. Cyprus agreed with the development of criminal law for the protection of the environment according to international standards and the establishment of an international court for environmental matters to ensure the observance of such standards.

56. Finland stated that the national implementation of international environmental conventions was recently highlighted in several international forums. In many situations, it has been suggested that, instead of drafting new conventions, it would be more efficient to improve the implementation of existing conventions. The intensification of the role of criminal law in the protection of the environment seems to fit such a context. With reference to the establishment of an international court for environmental matters, Finland expressed the view that while there might occur criminal cases having a transnational impact that would justify their prosecution before some international court, in practice the problems would be so extensive that the sense of reality in the efforts to establish an international court could be doubted. In addition to the general problems involved with an international criminal court, the material differences in the environmental law of different countries made the international hearing of environmental cases difficult, particularly with regard to the choice of law. At the current stage, it would be important to follow the progress made in the efforts to establish an international criminal court, which has been planned for a long time already, before efforts to create a special international court for environmental matters were taken up. However, Finland was in favour of the efforts to intensify criminal justice in the protection of the environment. At the international level, the intensification of the role of criminal justice could be supported in two different ways, namely, by recommending that States should enact laws on environmental offences, and by including provisions on the requirements for States to enact such penal sanctions that would guarantee the effective enforcement of certain provisions in international environmental conventions.

II. INFORMATION RECEIVED FROM THE UNITED NATIONS SYSTEM OF ORGANIZATIONS AND FROM OTHER INTERGOVERNMENTAL AND NON-GOVERNMENTAL ORGANIZATIONS

A. United Nations system

1. United Nations Secretariat

57. The Department for Economic and Social Information and Policy Analysis, while focusing on some aspects of environmental issues, has not developed activities related to the role of criminal law in the protection of the environment.

58. The Department for Development Support and Management Services maintains information on national laws, bilateral and multilateral treaties, case law and publications on the role of criminal law in the protection of the environment, as well as a roster of non-governmental organizations active in the field.

59. ECE reported that in various ECE decisions and in ministerial declarations special importance was attached not only to the elaboration of regional legal instruments in the field of the environment, but also to relevant follow-up action. In the last 20 years, eight international legally binding instruments, four conventions and four protocols, had been developed in ECE on air pollution, environmental impact assessment, industrial accidents and transboundary waters. Although those international legally binding instruments did not contain criminal provisions per se, they included important elements such as the undertaking of preventive measures and the role of the public. ECE is currently engaged in the preparation of a draft convention on access to environmental information and public participation in environmental decision-making.

60. ESCAP maintains a large collection of environmental framework legislation containing penal provisions in countries in the region of Asia and the Pacific. The enforcement of environmental legislation is described in the ESCAP 1995 *State of Environment Report in Asia and the Pacific*, in which it is noted that sanctions were increased during the last decade in the region. Most frequently, administrative sanctions have been used in environmental law enforcement and are usually specified in the implementing regulations. They cover non-compliance with or violation of prohibitions, permits and administrative standards and orders, and may result in revocation or cancellation of permits as well as administrative fines and other penalties. In administrative enforcement schemes, penalties may sometimes be imposed by the regulatory agency itself. The penal sanctions in environmental legislation enacted during the last decade include a considerable range of fines as well as imprisonment. In some countries, the proceeds of fines are applied to support the administrative cost of maintaining a pollution control system. In others, the courts may order that the fines be used to repair the damage caused by the polluting behaviour. Imprisonment, on the other hand, appeared to be an extreme remedy, and was therefore sparingly used except in cases involving serious or flagrant violations. A radical approach has been pioneered in the Philippines consisting of the establishment of a Pollution Adjudication Board, which has the exclusive jurisdiction to hear and decide pollution cases in the country. Further, in 1993 the Supreme Court of the Philippines, recognized that citizens and non-governmental organizations could institute legal proceedings to protect the right of present and future generations to a clean environment. Further, Australia has signed several bilateral agreements on mutual assistance in criminal matters, which also include assistance in environmental crimes.

2. United Nations bodies and other entities

61. The programme of work of the United Nations Conference on Trade and Development includes a component on trade, environment and sustainable development. This component relates to the effects of environmental policies and regulations on market access and competitiveness.

62. UNDP reported that, under its mandates, the Capacity 21 initiative, within the UNDP Sustainable Energy and Environment Division, is assisting several countries (within its broader capacity-building programmes) in introducing or strengthening environmental legislation. However, the main emphasis is on capacity building activities, particularly in cooperation with UNEP through the joint UNDP/UNEP programme on environmental law which is being carried out in seven African countries to build up their legal capacities.

63. UNEP is engaged in the implementation of the Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (Lusaka Agreement), which was adopted in September 1994 and entered into force in December 1996. The Lusaka Agreement is a cooperative regional arrangement to combat illegal trade in wild fauna and flora, aimed at reducing but ultimately eliminating illegal trade in wildlife species by establishing bodies to ensure effective criminal enforcement mechanisms of environmental law at both the national and regional level. At the regional level, it establishes a permanent multinational task force, composed of national law enforcement officers from each party capable of operating across the borders to combat criminal activities committed in the illegal trade in wildlife. In its efforts to implement the Lusaka Agreement, UNEP works closely with the International Criminal Police Organization, the Secretariat of the Convention to regulate International Trade in Endangered Species of Flora and Fauna, and other United Nations bodies and non-governmental organizations. UNEP and the Crime Prevention and Criminal Justice Division of the Secretariat are in the process of developing cooperative arrangements in the field of environmental crimes. UNEP and the Division plan to cooperate in the implementation of the Lusaka Agreement, as well as in the field of compliance and enforcement of criminal environmental law at the regional and national levels. Areas of cooperation envisaged include the provision of legal assistance in transnational wildlife investigations, training courses on environmental crimes for law enforcement officers, prosecutors and judges and drafting of new wildlife legislation. Further, UNEP reported that it is addressing the issue of environmental offences and their enforcement within its technical assistance programme in the field of environmental legislation, by providing technical support in the drafting of framework environmental laws, as well as sectoral laws. Penal provisions will continue to be included in national laws, as more and more countries became aware of the role of criminal law in the protection of the environment. On the broader subject of illegal activity affecting the environment, UNEP has undertaken some studies and initiatives in the context of its administration of various international instruments such as the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the Convention to regulate International Trade in Endangered Species of Flora and Fauna.

64. The UNEP Regional Office for Latin America and the Caribbean provided material on its Information Law System, which included laws and other regulations related to the topic, as well as a selected bibliography of authors in the region. For example, in 1992, Bolivia enacted the Environmental Act, including provisions on environmental crimes, under which any act that contributed to or caused harm to the environment, or is likely to cause harm to the environment, should be considered a punishable offence. The Act provides for fines and prison terms of up to 10 years, with the possibility of aggravations under certain circumstances. Further, the UNEP Regional Office maintains information on the Mexican Penal Code, as well as the Venezuelan Environmental Penal Act, 1992. The purpose of the latter was, on the one hand, "to define acts that violate the provisions regarding environmental conservation, defence and improvement as offences, and to establish related sanctions", and, on the other, to determine "precautionary, restoration and indemnity measures to which they may give rise". The Act establishes, for example, sanctions against juridical persons, which principally consist of fines and the prohibition of the activities that caused the pollution for a period of up to three years. Further, an Inter-American seminar on environmental damage liability was organized in 1995 by the UNEP Regional Office together with the Faculty of Law of the Inter-American University of Puerto Rico and the Conservation Trust of Puerto Rico at San Juan, which included the issue of penal liability for environmental damage.

65. The United Nations Institute for Training and Research is currently launching a programme of training in the application of environmental law. Aspects of enforcement, including criminal sanctions, will figure prominently in this programme. Correspondence instruction is a central component of the programme, along

with specialized follow-up workshops and seminars at regional or subregional level and selected efforts for environmental law capacity-building at national level. The programme is designed to assist government officials and others in national actions to improve environmental management for sustainable development. Enforcement of environmental legislation and regulations is highlighted in the various courses of instruction. While voluntary measures and incentives for compliance are stressed, criminal sanctions are also presented, especially in connection with intentional harm to environmental resources and cases of malfeasance.

66. The United Nations University has organized a small number of training programmes in the area of international environmental law. Environmental criminal law is considered a very important topic and aspect of environmental governance.

3. Specialized agencies

67. All legislation prepared by FAO for its member States under technical assistance projects contain penal provisions relevant to the protection of the environment. Guidelines have been prepared by the Legal Office of FAO to facilitate the adoption and national implementation of the Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas, approved by resolution 15/93 of the FAO Conference, at its twenty-seventh session, on 24 November 1993. The guidelines include the provision of penalties to achieve effective compliance.

68. WHO has conducted an in-depth search and retrieved legislative texts, adopted during the last five years, including laws and regulations of 18 countries containing penal provisions on the protection of the environment. The summary of its findings illustrated that environmental legislation is scattered through an array of legislation dealing with many different topics. In 1992, for example, Argentina enacted a law dealing exclusively with hazardous wastes; the Transport Operations (Marine Pollution) Act was proclaimed in Queensland, Australia; Belgium enacted a law on the prevention of marine pollution by ships; the Czech Republic enacted a law on the protection of the Earth's ozone layer; in Estonia, a law on the protection of marine and freshwater coasts, shores, and banks was enacted; and in Belize, regulations on environmental protection (effluent limitations) were enacted. The texts are published, in summary form, in the WHO quarterly journal, the *International Digest of Health Legislation*.

69. IMO forwarded a document entitled "Status of international conventions relating to marine pollution of which IMO is depositary or responsible for secretariat duties", which provided information of relevance to the issues of concluded bilateral and multilateral treaties, including legislation to ensure their implementation, and information on the status of implementation of international conventions at the national level. Further reference was made to article 4 of the 1973 Convention for the Prevention of Pollution by Ships, under which signatory states were requested to establish sanctions under the law of the Government of the State under whose authority the ship is operating, wherever the violation occurred, and under the law of any party within whose jurisdiction the violation occurred.

70. UNIDO stressed that an effective industrial environmental regulatory programme has four components: standards, permits, compliance monitoring and enforcement. Enforcement included both civil and criminal penalties. UNIDO suggested that any discussion of criminal enforcement should also recognize the importance of complementary regulatory command and control measures.

B. Intergovernmental organizations

71. The Commonwealth of Independent States (CIS) noted that the CIS heads of Government had signed an agreement on cooperation regarding ecology and environmental protection, under which an Inter-State Environmental Council was set up with an Inter-State Environmental Fund under its administration for the implementation of coordinated environmental programmes. The parties to the agreement agreed to elaborate

and pursue a coordinated policy on issues relating to ecology and protection of the natural environment, in particular with regard to safety requirements and standards regarding the transshipment of hazardous and radioactive cargo. The Governments of the CIS member States agreed to maintain the regulations in effect in the territory of the former Union of Soviet Socialist Republics, pending the adoption of international instruments or the elaboration of new unified instruments.

72. The Council of Europe reported that its steering committee responsible for criminal matters, namely, the European Committee on Crime Problems, had approved in June 1996, after almost five years of work, the draft Convention for the Protection of the Environment through Criminal Law. This draft was submitted to the Committee of Ministers for adoption. However, some technical issues remained to be resolved.

73. The International Organization for Migration recently conducted, jointly with the Office of the United Nations High Commissioner for Refugees and the Refugee Policy Group, a symposium on the theme of "Environmentally-induced population displacements and environmental impacts resulting from mass migrations". The main outcome of the symposium was the adoption of a statement of principles that sets a framework for preventive, mitigative and rehabilitative action in environmentally degraded areas.

74. The secretariat of the Organization for Security and Cooperation in Europe (OSCE) noted that in 1994 the heads of State and Government stressed their readiness to take necessary steps towards implementing various international conventions and arrangements relating to environmental protection. They stated their intention to work together with the relevant international organizations and institutions, to ensure the maintenance of environmental standards in the OSCE area. Further, the main focus of three OSCE seminars undertaken in the last two years was on global and regional partnership in the fields of environment management, environmental regulatory mechanisms and the transfer of environmentally safe technologies, international cooperation in protecting the environment, and promoting the economic and legal framework for environmentally sustainable development.

C. Non-governmental organizations

75. The Caribbean Conservation Association reported that the Law Library at the Faculty of Law of the University of the West Indies had developed and maintained a database on environmental legislation in the Caribbean. The Faculty also has an ongoing programme on environmental law.

76. Many member organizations of Friends of the Earth deal with legal issues, either individually, jointly or at the level of the entire network of organizations. This often, apart from research, involves lobbying and campaigning for improved legislation, for increasing the effectiveness of its enforcement or against violations of environmental laws. For instance, Friends of the Earth coordinates a project on illegal logging in four tropical countries, which is carried out by their respective member organizations. As this type of coordination was relatively new in the rather decentralized organization, no central database existed.

77. The International Bar Association compiles information on criminal enforcement of environmental laws in several countries. For example, with regard to the Netherlands, it was stated that virtually every norm can be enforced by means of criminal sanctions. The most important legal tool for the criminal enforcement of environmental legislation is the Economic Crimes Act, which provides for sanctions such as imprisonment, fines, the temporary closure of an enterprise, or placement under temporary control of an administrator, and publication of the judgement. In addition, measures may be imposed, including the reinstatement of the original situation, the repair of the damage and the forfeiture of the economic gains derived from the criminal act. With regard to enforcement initiatives, the Netherlands adopted in 1989 a national environmental plan. The local government authorities added new supervisory personnel, the police force was enlarged, and in each judicial district at least one public prosecutor was appointed to ensure the enforcement of environmental laws. Plans existed to structure the cooperation between government authorities and the police by setting up regional

enforcement teams that would be charged, *inter alia*, with the investigation of criminal offences. For serious environmental crimes such a structure is already in place. Concerning statistics, the number of criminal cases increased rapidly from 4,000 in 1992 to 15,000 in 1995. In 83 per cent of the cases, the sanction was the imposition of a fine. However, environmental offenders were increasingly confronted with prison terms; from 1994 to 1995 sentences for imprisonment doubled.

78. The International Centre of Sociological, Penal and Penitentiary Research and Studies published in 1993 a comprehensive study entitled *The Protection of the Environment and Penal Law*. It covered the topic from different perspectives, including international cooperation and the experience of certain countries, particularly that of Italy.

79. The International Council of Environmental Law, in cooperation with the Environmental Law Centre of the International Union for Conservation of Nature and Natural Resources, maintains large databases and collections of international treaties, national legislation and literature pertaining to environmental law. However, criminal law plays a minor role in these collections, as it has not been a main focus of work of the International Council. For example, only about 50 items in the legislation collection are cross-referenced for criminal law, and at best only a few relate to transnational crime. The same may be said for the literature. For the most part, the material focuses on national approaches to enforcing environmental law through criminal law. Transnational aspects arise only for a few issues, such as transboundary shipment of waste and smuggling in contravention of the Convention to regulate International Trade in Endangered Species of Flora and Fauna. The International Council and the Crime Prevention and Criminal Justice Division are exploring means to ensure a regular exchange of information.

80. The Inter-Parliamentary Union each year prepares a document showing the status of ratification of the main international instruments in the field of the environment and sends it to all its member parliaments.

81. The Japan Federation of Bar Associations maintains information on the role of criminal law in the protection of the environment in Japan, covering issues such as waste management and nature protection. In October 1996, the Federation submitted a written opinion on a planned reform of the Japanese Wastes Disposal Law, asking that the revisions include, *inter alia*, the strengthening of penalties to ensure a deterrent effect, the establishment of a fund to repair environmental damage, and provisions that hold waste generators liable for damage caused to the environment.

82. The Young Lawyers' International Association maintains a collection of comprehensive reports from several lawyers, containing information on the role of criminal law in the protection of the environment in their respective countries. For example, it was reported that in October 1996, the United States Environmental Crimes and Enforcement Act was announced by the President of the United States. However, as of 1 November 1996, the Act had not yet received the official endorsement of the Congress. This initiative, if enacted into law, would include new and expanded enforcement tools for environmental investigators and prosecutors, and provide for greater coordination of federal, state and local efforts in the area of environmental criminal enforcement. Provisions for seeking reimbursement for the costs of investigation and criminal prosecution from persons convicted of criminal violations of a federal environmental law or conspiracy to violate such law are also included in the proposal. A review of recent criminal environmental sentences and plea agreements illustrated that criminal environmental enforcement in the United States continued to command a high priority and to carry serious penalties for violators. For example, a case in 1996 resulted in a total of $22 million in criminal fines and civil penalties for a company and some of its top corporate officials for violations of the Clean Water Act. Fines of $1.5 million dollars, the maximum allowable penalty, were assessed against a company for illegal hazardous waste disposal violations. In addition, the company received a sentence of five years probation and was required to provide its employees with environmental education.

III. INTERNATIONAL COOPERATION

A. Monograph on capacity-building

83. As part of the Capacity 21 initiative led by UNDP, the "Monograph on capacity-building in criminal enforcement of environmental law" was prepared by the Division in cooperation with the United Nations Interregional Crime and Justice Research Institute. UNDP is in the process of combining that monograph with another monograph on capacity-building prepared by UNEP, providing a comprehensive publication in the area of environmental law and its enforcement in terms of capacity-building. The combined publication will identify areas where concrete projects in the field of criminal enforcement of environmental law could be developed and implemented, and proposes elements on which technical assistance activities may be focused, such as the preparation of legislation, institution-building, enforcement tools, training and education.

B. Technical cooperation projects

84. Project proposals have been developed for the protection of the environment by means of the criminal law in the developing countries of the English-speaking Caribbean and the South Pacific. Both regions are confronted with serious environmental problems. Growing populations, expanding tourism, industrial activities, and overfishing are some of the causes of those problems. Assistance is required in drafting national legislation, implementing newly enacted legislation, setting up the necessary institutional frameworks as well as a system of data distribution, and training enforcement officials.

85. The project proposals envisage the establishment of a reformed criminal law system equipped to serve as an effective tool in the protection of the environment, by providing assistance at both the national and the subregional levels. The projects are designed to achieve this aim by: (a) providing assistance in the preparation of new policy guidelines, rules and regulations; (b) providing further assistance in the establishment of an environmental permit and enforcement system; (c) organizing training programmes for executive personnel within administrative and law enforcement agencies and criminal justice; (d) preparing a standard-setting manual for practitioners, as well as providing technical assistance for the establishment of a database to store and retrieve relevant information; (e) fostering the participation of all concerned citizens, by implementing legislative provisions on environmental rights and providing for environmental education; and (e) facilitating the exchange of information and experiences among the countries in the region concerned.

C. Database

86. The Division has set up a computerized database containing all information available to the Division on the issue of criminal law in the protection of the environment, including national legislation, bilateral and multilateral treaties and publications.

D. Roster of experts

87. In order to receive comprehensive information on the role of criminal law in the protection of the environment on a continuous basis, the Division has established a roster of experts, including 200 experts in 54 countries. These experts regularly provide information on the role of criminal law in the protection of the environment in their respective countries, as well as on the feasibility of implementing technical assistance projects.

IV. CONCLUSION AND ACTION REQUIRED BY THE COMMISSION

88. Criminal law has a crucial role to play in the protection of the environment. A comprehensive and balanced response to environmental crime includes administrative, civil and criminal remedies. However, to combat crimes involving, in particular, illegal trafficking in hazardous and nuclear substances and endangered species, criminal law should be used as the primary tool, since penal sanctions, by criminalizing a certain behaviour with a corresponding penalty, have a greater deterrent effect.

89. While several countries have undertaken steps to create uniform and effective legislation to counteract environmental crime, by enacting or revising laws dealing with this issue, other countries should be encouraged to do likewise. Environmental laws should be easy to enforce, and criminal sanctions should be applied in proportion to the damage to the environment. The feasibility of establishing corporate liability should be explored, as the principle of personal liability makes criminal law ineffective in an area where environmental degradation is mainly attributed to private and public entities. Laws should recognize and safeguard the environment as a value per se.

90. Despite the advantages of employing an effective criminal law system to punish environmental crimes, criminal enforcement is still in its relative infancy in most countries. Countries should be encouraged to enforce their environmental laws and prosecute environmental offenders. Environmental enforcement provides a critical opportunity to alter indifferent corporate and individual behaviour as it relates to the pollution of the environment. Traditionally, criminal law seeks to punish and rehabilitate the offender and deter others from committing similar acts. Tough but responsible enforcement of the criminal law in this context may persuade those who deal, for example, with hazardous substances that it is not worth the risk to take short cuts in handling and disposal procedures, thus depriving those illegally dealing in hazardous substances of lucrative business opportunities. Environmental enforcement can thus play its part in the global efforts to protect the irreplaceable resources of a fragile planet.

91. The efforts made by Member States and relevant organizations underline the importance of continuing the discussions of the role of criminal law in the protection of the environment with a view to developing more viable policies. In that connection, Member States should be encouraged to develop comprehensive legislation on environmental crime, and to assist law enforcement officials in effectively and reasonably enforcing laws dealing with environmental offences, by providing them with appropriate training on how to deal with this form of crime.

92. The guidance of the Commission is required in developing a strategy on strengthening the role of criminal law in the protection of the environment, particularly in developing countries and countries with economies in transition. In this context, and on the basis of the government replies summarized in the present report, the Commission may wish to consider the feasibility of preparing a model law on environmental offences, as well as a manual for practitioners, in order to ensure a quick response to requests for assistance from Member States. This will entail close cooperation with relevant agencies and programmes, such as UNDP, UNEP, the World Bank and other entities.